

IN THE CLAIMS

B5. 1. (Once amended) A system for testing a semiconductor device comprising:
a circuit board comprising circuitry adapted to provide an actual operating environment for the semiconductor device, the circuit board having a front side and a back side;
test terminals formed on the back side of the circuit board and arranged to couple the semiconductor device to the circuit board, and
automatic handling equipment arranged to allow automatic coupling and decoupling of the semiconductor device to the test terminals.

2. The system of claim 1, wherein the test terminals are pins protruding from the back side of the circuit board.

3. The system of claim 1, wherein the test terminals are arranged to correspond to the terminals of a component on the front side of the board.

4. The system of claim 1, further comprising a connector coupled to the test terminals.

5. The system of claim 1, further comprising an interface board coupled to the test terminals.

6. The system of claim 5, wherein the interface board is adapted to reverse the arrangement of the test terminals.

7. The system of claim 5, wherein the interface board is adapted to create a test environment that is the same as actual operating conditions for the semiconductor device.

8. The system of claim 5, further including a socket mounted on the interface board for coupling the semiconductor device to the circuit board.

9. The system of claim 8, wherein the socket is a socket for a module.

36
10. (Once amended) The system of claim 9, wherein the interface board is adapted to compensate for environmental differences caused the socket.

11. The system of claim 5, further comprising a support disposed between the interface board and the circuit board.

12. The system of claim 5, further comprising a fastener for attaching the interface board to the circuit board.

13. The system of claim 5, further comprising a connector coupled between the interface board and the test terminals.

14. The system of claim 5, wherein the interface board is adapted to reverse the arrangement of the test terminals, and further comprising a socket for a module coupled to the interface board.

37
15. (Once amended) A system for testing a semiconductor device comprising:
a circuit board comprising circuitry adapted to provide an actual operating environment for the semiconductor device, the circuit board having a front side and a back side;
means for coupling the semiconductor device to the back side of the circuit board, and
automatic handling equipment arranged to allow automatic coupling and decoupling of the semiconductor device to the test terminals.

16. The system of claim 15, wherein the means for coupling the semiconductor device to the back side of the circuit board comprises test terminals formed on the back side of the circuit board and arranged to couple the semiconductor device to the circuit board.

17. The system of claim 16, wherein the test terminals are pins protruding from the back side of the circuit board.

18. The system of claim 15, wherein the means for coupling the semiconductor device to the back side of the circuit board comprises a connector.

19. The system of claim 15, wherein the means for coupling the semiconductor device to the back side of the circuit board comprises an interface board coupled to the circuit board.

20. The system of claim 15, wherein the means for coupling the semiconductor device to the back side of the circuit board further comprises a socket mounted on the interface board for coupling the semiconductor device to the circuit board.

21. The system of claim 20, wherein the socket is a socket for a module.

B8 22. (Once amended) A method for testing a semiconductor device comprising:
coupling the semiconductor device to the back side of a circuit board comprising circuitry adapted to provide an actual operating environment for the semiconductor device using the automatic handling equipment;
operating the circuitry on the circuit board; and
decoupling the semiconductor from the back side of a circuit board using the automatic handling equipment.

23. The method of claim 22 wherein coupling the semiconductor device to the back side of the circuit board comprises:
coupling an interface board to the back side the circuit board; and
coupling the semiconductor device to the interface board.

24. The method of claim 23 wherein coupling the semiconductor device to the interface board comprises coupling the semiconductor device to a socket on the interface board.

25. The method of claim 23 wherein coupling the semiconductor device to the interface board comprises coupling a module having the semiconductor device mounted thereon to a socket on the interface board.

B9 26. (New) The test system of claim 1, wherein the circuit board is a computer mother board, a communication appliance, or switching equipment.

B9
concl'd

27. (New) A system for testing a semiconductor device comprising:
a circuit board comprising circuitry adapted to provide an actual operating environment for the semiconductor device, the circuit board having a front side and a back side;
test terminals formed on the back side of the circuit board and arranged to couple the semiconductor device to the circuit board; and
an interface board coupled to the test terminals.

28. (New) The test system of claim 27, wherein the interface board is adapted to create a test environment that is the same as actual operating conditions for the semiconductor device.

29. (New) The test system of claim 27, wherein the interface board is adapted to reverse the arrangement of the test terminals, and further comprising a socket for a module coupled to the interface board.
